DOCUMENT RESUME

ED 427 377 CS 510 014

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TITLE "Make'em Laugh and They Will Learn": A Closer Look at the Relationship between Perceptions of Instructors' Humor Orientation and Student Learning.
PUB DATE 1998-11-00
NOTE 56p.; Paper presented at the Annual Meeting of the National Communication Association (84th, New York, NY, November 19-24, 1998).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Classroom Communication; Communication Research; Higher Education; *Humor; *Student Attitudes; *Teacher Behavior; Teacher Student Relationship; Undergraduate Students
IDENTIFIERS *Teacher Immediacy

ABSTRACT

The use of humor in the classroom has been investigated using a variety of humor operationalizations and methodologies with mixed results. The present study examined the role of teacher humor orientation (HO) rather than specific humorous behaviors. The relationship between teacher humor orientation and learning was the focus of this study. Subjects, 314 students enrolled in one of two introductory communication courses at a mid-sized Midwestern university, completed a variety of measures regarding the instructor of their class immediately before their communication class. Results indicated that a high humor orientation was associated with increased student learning. Teacher humor orientation was also examined in relation to nonverbal immediacy and sociocommunicative style. Additionally, the interaction between teacher humor orientation and student humor orientation on learning was examined. It was found that high HO students learned more with a high HO teacher. Contains 60 references, a figure, and 3 tables of data. (RS)

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"Make 'em Laugh and They Will Learn": A Closer Look at the Relationship Between Perceptions of Instructors' Humor Orientation and Student Learning

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Paper presented at the November 1998 annual meeting of the National Communication Association, New York, NY.

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Abstract

The use of humor in the classroom has been investigated using a variety of humor operationalizations and methodologies with mixed results. In the present study we examine the role of teacher humor orientation rather than specific humorous behaviors. The relationship between teacher humor orientation and learning was the focus of this study. Results indicated that a high humor orientation was associated with increased student learning. Teacher humor orientation was also examined in relation to nonverbal immediacy and socio-communicative style. Additionally, we examined the interaction between teacher humor orientation and student humor orientation on learning. It was found that high HO students learned more with a high HO teacher.

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Humor and attempts at humor are used strategically in many of our daily interactions. During conversations with peers, individuals use humor to gain liking (Bell & Daly, 1984). At work, humor is used as a means of reducing tension (Winnick, 1976). In group situations, humor is used to increase cohesion, define social boundaries, and soften critical statements (Graham, Papa, & Brooks, 1992). In the classroom, students use humor as one means of gaining liking from their professors (Wanzer, 1995). Regardless of the context, humor is an important communication strategy with a variety of uses.

Researchers have documented a positive relationship between teachers' use of humor and teacher evaluations (Bryant, Crane, Cominsky & Zillmann, 1980) and student learning (Chapman & Crompton, 1978; Curran, 1972; Davies & Apter, 1980; Gorham & Christophel, 1990; Hauck & Thomas, 1972; Wakshlag, Day, & Zillmann, 1981; Weinberg, 1973; Ziv, 1979; Ziv, 1988). Additionally, instructors' use of humor helps to create an enjoyable classroom environment (Neuliep, 1991) where students are less anxious (Long, 1983; Ziv, 1976) and more

willing to participate in class (Korobkin, 1988). Instructors frequently use humor as a means of clarifying course material to facilitate learning (Downs, Javidi, & Nussbaum, 1988). Gorham and Christophel (1990) identified humor as an important immediacy behavior that can facilitate student learning and positive perceptions of instructors. Teachers' use of humor is recognized as one of many teacher behaviors that motivate students in the classroom (Gorham & Christophel, 1992). Alternatively, teachers' lack of humor in the classroom is recognized as a source of student demotivation (Gorham et al., 1992). Clearly, teachers' use of humor aids in creating an environment that is conducive to learning (Neuliep, 1991; Dickmeyer, 1993).

Generally, humor researchers have examined the effects of humor (Graham et al., 1992) and how individuals differ in the production of humorous messages (Booth-Butterfield & Booth-Butterfield, 1991; Wanzer, Booth-Butterfield, & Booth-Butterfield, 1995; Wanzer, Booth-Butterfield, 1996a). The present study adopts an individual differences approach to the study of humor in the classroom. Specifically, the relationship

between student perceptions of teachers' humor orientation and student learning was investigated. We expect students learn more from teachers who use humor frequently and effectively (high humor oriented teachers) in the classroom. Additionally, we expect a positive relationship between an instructor's level of humor orientation (HO) and immediacy. These hypotheses, as well as others, will be the focus of this study.

The following sections overview instructional research on humor in relationship to student learning, humor orientation as it relates to student learning and immediacy, and socio-communicative style as it relates to humor orientation, immediacy, and student learning.

The Impact of Teachers' Humor on Student Learning

A number of studies have found a positive relationship between teachers' use of humor and student learning (Chapman & Crompton, 1978; Curran, 1972; Davies & Apter, 1980; Gorham & Christophel, 1990; Hauck & Thomas, 1972; Wakshlag, Day, & Zillmann, 1981; Weinberg, 1973; Ziv, 1979; Ziv, 1988). The theoretical explanation for the humor-learning relationship is based on the attention-gaining and holding power of humor (Ziv, 1979). This theoretical explanation was advanced by Kelley and Gorham (1988) to explain the immediacy-learning relationship. The attention-gaining explanation indicates that a variable such as immediacy is arousing, which is related to gaining and keeping students' attention, which is related to memory, which in turn is related to cognitive learning (Kelley & Gorham, 1988). We speculate that humor could serve a similar attention gaining effect. However, this model was not fully supported by Frymier (1994) who found student state motivation to be a mediating factor between immediacy and learning.

While several studies provided support for the humor-learning relationship others have not. There were a number of reasons why these early studies using college students did not find a positive relationship between use of humor and learning (Gruner, 1967; 1976; Kennedy, 1972; Kilpela, 1961, Taylor, 1964; Youngman, 1966). One explanation for the failure to show support for the humor-learning effect was the length of these studies (Ziv, 1988). Perhaps exposure to the humorous stimuli was too short for information to be retained. For several

studies, the duration of the experiment was 10 minutes or less (Kilpela, 1961; Taylor, 1964; Youngman, 1966). Additionally, Ziv (1988) noted that most of these studies were conducted in artificial experimental settings that did not resemble true academic situations.

Gorham & Christophel (1990) have also commented on the experimental procedures used to test the humor-learning relationship. They noted that a majority of the studies used similar procedures. Participants were tested for recall following lectures in which humor was introduced in the experimental condition and omitted in the control (Gorham & Christophel, 1990). From a communication perspective, it is somewhat difficult to generalize findings among the various studies for two reasons. First, different types of humor (cartoons versus stories and jokes) and placement of humor (humor placed at key points of the lecture, versus humor throughout the presentation) could have elicited differential rates of retention. Second, researchers used different experimental methods. Researchers used audiotapes (Kilpela, 1961; Taylor, 1964; Youngman, 1966), lectures (Weinberg, 1973), written speeches and tasks

(Hauck & Thomas, 1972; Markiewicz, 1972) and video clips (Wakshlag, Day, & Zillmann, 1981) of humorous messages. Again, it is difficult to compare these studies' results. Differences in results may be a function of the way the humor was presented.

Gorham and Christophel (1990) recognized humor as a high-inference variable which included a composite of verbal and nonverbal behaviors. Additionally, they noted that the "amount of humor teachers are perceived to use in class is significantly related to students' perceptions of how much they learn and how positive they feel about the course content" (p. 48). Gorham and Christophel (1990) pointed out the problems in using a limited operationalization of humor and set out to broaden our understanding of the qualitative and quantitative ways that teachers differ in their use of humor. They expanded on Bryant, Cominsky, and Zillmann's (1979) study which identified only six types of teacher humor. Gorham and Christophel's goal was to present an exhaustive and representative classification scheme of humor that teachers use in the classroom. Thirteen categories of humorous behaviors were

inductively derived from actual humorous attempts of teachers as described by students.

Another important goal of the Gorham and Christophel (1990) study was to examine the relationship between instructor's use of humor, instructor immediacy, and learning. The researchers found that the amount and the type of humor influenced learning but not to the same extent as immediacy. They noted that the relationship of teachers' use of humor in the classroom to student learning is better understood when considered along with teacher immediacy.

Neuliep (1991) used Gorham and Christophel's (1990) thirteen humor categories to investigate high school teachers' perceptions and use of humor in the classroom. High school teachers indicated that virtually all of the humor items were appropriate to use in the classroom. Additionally, they indicated the reasons they used humor in the classroom. The top three reasons for using humor in the classroom were to put students at ease, to gain their attention, and to show that the teacher is human. Neuliep also inductively derived a 20-item taxonomy which expanded on Gorham's 13 categories.

Researchers have noted the qualitative and quantitative differences in the ways that teachers use humor along with the effects of humor use in the classroom. This study investigates the types of teachers more likely to use humor in the classroom and the effects of their humor. Also, we examine possible relationships between HO and positive instructor characteristics such as immediacy and socio-communicative style. Teacher immediacy, assertiveness, and responsiveness have repeatedly proven to be favorable instructional tools (Frymier, 1993; Frymier, 1994; Gorham & Zakahi, 1990; Kelley & Gorham, 1988; Thomas, 1994). This study investigates the importance of humor orientation as an instructional tool.

Humor Orientation and Student Learning

It would seem as though teachers who used humor regularly and were effective in executing humor would be well-liked by their students. High humor oriented individuals report employing diverse humor strategies across a variety of situations (Booth-Butterfield & Booth-Butterfield, 1991), are perceived as funnier than low humor oriented individuals (Wanzer, Booth-Butterfield,

& Booth-Butterfield, 1995), more competent communicators, more affectively oriented, (Wanzer, et al., 1995), and viewed as more socially attractive and less lonely (Wanzer, Booth-Butterfield, & Booth-Butterfield, 1996a). Additionally, subordinates reported greater liking for high humor oriented managers and viewed them as more effective (Rizzo, 1997). In the health care and business contexts, humor oriented individuals report greater coping efficacy which could be explained in part, by their propensity to use humor as a coping strategy (Rizzo, 1997; Wanzer, Booth-Butterfield, & Booth-Butterfield, 1997).

To date, humor orientation (HO) has not been investigated in the instructional context. We suspect that students will learn more from high HO teachers than low HO teachers. High HO teachers are more likely to use humorous messages while teaching. Additionally, these teachers will, most likely, be viewed as funnier and more socially attractive than low HO teachers. Students will most likely attend class more often, pay attention during class more often, and, ultimately learn more from high HO teachers. Thus, the following hypothesis is advanced:

H1: There will be a significant positive correlation between student perceptions of teacher's humor orientation and student learning.

To this point we have only discussed student perceptions of
teacher personality traits in relationship to learning. However the teacher-student relationship is not one way. Previous research has shown that student and teacher characteristics interact. The relationship between perceived teacher and student similarities in background, attitudes, and appearance in relationship to student learning was explored by Elliot (1979). He concluded that teacher and student background and attitude similarity were positively associated with affective learning.

In an investigation of student communication predispositions and teacher communication behaviors, Frymier (1994) found that both students' beginning state motivation (measured at the beginning of the semester) and teacher immediacy influenced students' state motivation to study at the end of the semester. While Frymier (1994) did not find a significant interaction, she did find that teacher immediacy had a greater impact on

students beginning the semester with low or moderate motivation than it did on students beginning the semester with high motivation to study. In a similar vein, Frymier (1993) investigated the interaction of students' communication apprehension and teacher immediacy. Teacher verbal immediacy and student communication apprehension interacted such that highly apprehensive students were much less motivated with a low immediacy teacher than were student low in CA. Low CA students' level of motivation did not differ with a low immediate versus a high immediate teacher. In another study investigating the interaction of student and teacher characteristics, Wooten and McCroskey (1996) found that students' socio-communicative orientation interacted with teachers' socio-communicative style. They found highly assertive students reported trusting a highly assertive teacher more than they did less assertive teachers. In contrast, less assertive students reported trusting less assertive teachers more than they did more assertive teachers. These studies taken together indicate that the teacher-student relationship is transactional in nature. In order to fully understand how teacher communication variables impact learning, student communication characteristics and behaviors must be taken into consideration.

We sought to address the transactional nature of the teacher-student relationship by investigating the interaction of student HO with teacher HO on learning. The work on the use of humor in teaching has focused on the teacher only, giving us little basis for proposing an hypothesis, therefore we posed the following research question:

RQ1: Will an interaction occur between student HO and teacher HO on learning.

Gorham and Christophel (1990) noted that the total number of teachers' humorous enactments were positively correlated with the frequency of verbal and nonverbal immediacy behaviors. Humor and immediacy behaviors can involve similar mannerisms such as smiling, exaggerated facial expressions and body movements, and changes in rate, pitch, and volume of one's voice. Thus, it would seem plausible that teachers perceived as high humor oriented would also be viewed

as highly immediate by their students. The following hypothesis is advanced:

> H2: There will be a significant positive correlation between student perceptions of teacher's humor orientation and nonverbal immediacy.

High humor oriented teachers would most likely use more different types of humorous behaviors in the classroom. Booth-Butterfield and Booth-Butterfield (1991) noted that high humor oriented individuals, as compared to low humor oriented individuals, reported using a wide assortment of humorous behaviors such as making faces, witty language, nonverbal behaviors, and telling jokes. Additionally, high humor oriented individuals were able to list more types of humorous behaviors than their low humor oriented counter parts (Booth-Butterfield et al., 1991). Additionally, students would probably regard high humor oriented teachers' use of these behaviors as more appropriate than low humor oriented teachers. As Ziv (1988) notes, not all teachers should be encouraged to use humor due to personality differences. For some teachers, use of humor could be dangerous or embarrassing for the teacher (Ziv, 1984). Thus, students would probably regard high humor orientéd instructors' use of humorous behaviors as more appropriate than low humor oriented instructors' use of the same behaviors. The following hypothesis is advanced:

> H3: Students will regard high humor oriented teachers' use of humorous behaviors as more appropriate than low humor oriented teachers use of the same behaviors.

In order to fully understand the relationship of a teacher's humor orientation in the teaching-learning process, it is necessary to examine humor orientation in relation to other, better understood variables. One such variable is socio-communicative style (McCroskey & Richmond, 1996; Richmond & McCroskey, 1990) which consists of two dimensions: assertiveness and responsiveness. Others have identified similar constructs such as "personal style" (Merrill & Reid, 1981), "social style" (Lashbrook, 1974), and "psychological androgyny" (Bem, 1974; Wheeless & Dierks-Stewart, 1981). McCroskey and Richmond (1996) label persons high in both assertiveness and responsiveness as competent-androgynous. Persons low in both assertiveness and

responsiveness are labeled as noncompetent-undifferentiated. Persons high in responsiveness and low in assertiveness are labeled as submissive-feminine, while individuals low in responsiveness and high in assertiveness are labeled aggressive-masculine.

Teacher socio-communicative style has been found to be associated with affective learning (Thompson, 1992) such that students who perceive their teachers as more assertive and responsive report higher levels of affective learning. Thompson (1992) found this not only in the American culture, but in other cultures as well. Thomas, Richmond, and McCroskey (1994) found that teachers who were perceived as being highly assertive and responsive were also perceived as being high in nonverbal immediacy. Meyers and Avtgis (1997) replicated this association in a sample with a wide variety of friendships, acquaintances, family, and stranger relationships being referenced by participants. Communicators who were perceived to be competent (highly assertive and highly responsive) were also perceived as being more nonverbally immediate. These studies indicate that the perceived assertiveness and responsiveness of the teacher are important to the teaching-learning process. In order to more fully understand the role teacher humor orientation plays in the teaching-learning process, we put forth the following research question.

RQ2: What will be the relationship between teacher humor orientation and socio-communicative style?

Replication of research is an important part of developing a knowledge and understanding of a phenomenon. The phenomena of general interest here are the communication behaviors that facilitate learning in the teacher-student relationship. Previous research (Myers & Avtgis, 1997; Thomas, et al, 1994) has found a positive relationship between socio-communicative style and nonverbal immediacy. We put forth the following hypothesis in an effort to replicate this previous research.

H4: There will be a significant positive relationship between instructors' socio-communicative style and nonverbal immediacy.

Finally, we were interested in the communication-based personality trait or communication behaviors which explained the most variance in student learning.

Researchers have identified the relationship between teacher immediacy and student learning a number of times (Christophel, 1990a, Christophel, 1990b, Gorham, 1988; Gorham & Zakahi, 1990; Kelley & Gorham, 1988). Additionally teacher's socio-communicative style has been linked to student learning (Thomas, 1994; Thompson, 1992). But, what about an instructor's level of humor orientation in relationship to student learning? How does an instructor's reported level of humor orientation compare to immediacy and socio-communicative style when attempting to explain student differences in learning?

RQ3: Will nonverbal immediacy, teacher humor orientation, or teacher socio-communicative style be the best predictor of the variance in student learning?

METHOD

Participants

Participants in this study consisted of 314 students enrolled in one of two introductory communication courses at a mid-sized Midwestern university. The sample was made up of 124 males and 190 females of which 51 were first year students, 144 were sophomores, 74 were juniors, and 45 were seniors. Participants were asked to think of the instructor they had for the class immediately before their communication class. This methodology was developed by Plax, Kearney, McCroskey, and Richmond (1986) in order to maximize the number and variety of instructors in the sample. Participants reported on 219 male instructors and 94 female instructors from 37 departments in five of the six colleges/schools in the university. Data was collected during the eleventh week of a sixteen week semester.

Measures

Humor Orientation. The HO scale is a 17-item self-report measure that uses a five point Likert-type format (1=strongly disagree, 5=strongly agree). This scale was developed by Booth-Butterfield and Booth-Butterfield (1991) to measure an individual's predisposition to enact humorous messages such as funny stories or jokes during interaction. Scores can range from 17 to 85. Two variations of this scale were completed. First participants completed the HO scale on themselves. Student HO had a M=61.75 with a SD=8.00, which is similar to that reported

by Wanzer et al. (1995) of M= 61.2 and SD =9.5. Student HO had an alpha reliability of .90.

Second, participants completed the HO scale on the teacher they had in the class immediately preceding their communication class. Items were reworded to reflect what the teacher usually does. Teacher HO reflects students' perceptions of their teachers use of humor in the classroom. Teacher HO had a M=51.41 and SD=14.00. Teacher HO had an alpha reliability of .95.

Humor Behaviors. The humor behavior scale consists of eight humor strategies with examples provided with each item. Six of the humor behavior items were based on categories of humorous behaviors identified by Booth-Butterfield and Booth-Butterfield (1991). The remaining two items were developed by Wanzer, Booth-Butterfield, and Booth-Butterfield (1996). The eight items are shown in Figure 1. Participants were asked to indicate how appropriate it was for their instructor to use each of the behaviors using a 5-point Likert-type scale with highly inappropriate and highly appropriate anchoring the scale. The humor behavior scale had a M=25.11 and SD=5.06 with an alpha reliability of .76.

Figure 1 about here

Nonverbal Immediacy. Nonverbal immediacy was measured with the Nonverbal Immediacy Scale, which consists of 14 items (Richmond, Gorham, & McCroskey, 1987). Participants were asked to indicate the frequency in which their teachers performed each immediacy behavior using a Likert-type scale from zero (never) to four (very often). The nonverbal immediacy scale had a M=37.80 and SD=8.49 with an alpha reliability of .85.

Socio-Communicative Style. Richmond and McCroskey's (1990) assertiveness-responsiveness measure was used to measure socio-communicative style. This measure consists of 20 items that use a 5-point Likert-type scale anchored by strongly disagree and strongly agree. Participants were asked to indicate the degree that each of the items applied to their teacher. Ten of the items measure assertiveness while the other ten items measure responsiveness. Assertiveness is defined as the "capacity to make requests, actively disagree, express positive or negative personal rights and feelings, initiate, maintain or

disengage from conversations, and stand up for oneself without attacking another (McCroskey & Richmond, 1996, p. 92). Responsiveness is defined as the "capacity to be sensitive to the communication of others, to be a good listener, to make others comfortable in communicating, and to recognize the needs and desires of others" (McCroskey & Richmond, 1996, p. 93). In the present study, assertiveness had a M=33.45 (median=33), a SD=7.11, and an alpha reliability of .93, while responsiveness had a M=34.81 (median=33.5), a SD=7.60, and an alpha reliability of .88.

Learning. Participants reported their level of learning using two different scales. Four of the six subscales from Gorham's (1988) affective learning scale were used. Gorham (1988) operationalized affective learning with six subscales asking students about their (a) attitude toward course content, course recommended behaviors, and course instructor, and (b) their behavioral intent to engage in behaviors recommended in the course, enroll in another course of related content, and take another class with the same instructor. We did not use the two behavioral subscales. Each subscale used four, 7-step bi-polar adjectives to measure learning. The four subscales were summed to create a measure of affective learning. Previous reliabilities for Gorham's (1988) affective learning scale have ranged from .96 - .98. The reliability for the abbreviated scale in the present study was .95 with a M = 78.69 and SD = 23.12.

The second method of measuring learning was the Learning Behaviors scale. The scale consists of eight items that reflect learning activities that students may engage in when involved in the learning process. Three of the learning items were drawn from Frymier, Shulman, and Houser (1996) learning indicators scale. The other five items were developed by Frymier and Houser (1997). Participants were asked to indicate how frequently they performed each of the behaviors using a Likert-type scale from 0 (never) to 4 (very often). Previous alpha reliability for this scale was .83 (Frymier & Houser, 1997). In the present study the Learning Behaviors scale had an alpha reliability of .85 with a M=19.22 and a SD=6.12. This mean and standard deviation are similar to those found by Frymier and Houser (M=19.15 and SD=5.83).

RESULTS

The first hypothesis predicts that there will be a significant positive correlation between student perceptions of teachers' humor orientation and student learning. This hypothesis was confirmed. Teacher HO was positively associated with affective learning (r=.47, p<.001) and with learning behaviors (r=.46, p<.001). When students perceived their teacher as having a high humor orientation, students reported having greater affect for the teacher and course and reported performing more learning behaviors.

The first research question asked if an interaction would occur between student HO and teacher HO on learning. To address this question ANOVA with a 2 (high & low student HO) x 2 (high & low teacher HO) factorial design was used. The two measures of learning served as dependent variables in separate analyses. Affective learning was the dependent variable in the first ANOVA which was significant [F(3, 312)=21.04, η=.17, p<.001]. There was a significant main effect for teacher HO [F(1, 312)=52.81, p<.001] and a significant interaction on affective learning [F(1, 312)=7.90, p<.01]. There was no significant main effect for Student HO. Examination of the least-square means in Table 1 indicate that high HO students who perceive their teacher as high HO (M=87.66), report a level of affective learning that is significantly higher than both low HO and high HO students with a low HO teacher (M=75.22 and M=63.46 respectively). There was no significant difference between high and low HO students with a high HO teacher. See Table 1 for means and standard deviations).

Table 1 about here

With learning behaviors serving as the dependent variable, the ANOVA was also significant [F(3, 309)=15.41, η=.13, p<.001]. Results were similar to those with affective learning. There was a significant main effect for teacher HO [F(1, 309)=37.43, p<.001] and a significant interaction [F(1, 309)=8.05, p<.01]. Examination of the least-square means in Table 2 reveals the same pattern as we observed with affective learning with high HO students with a

teacher perceived as high HO having the highest level of learning (M=21.87) and high HO students with a low HO teacher having the lowest level of learning (M=16.01). See Table 2 for means and standard deviations.

Table 2 about here

The second hypothesis stated that there will be a significant positive correlation between student perceptions of teachers' humor orientation and nonverbal immediacy. This hypothesis was confirmed. Teacher HO and nonverbal immediacy were significantly and positively correlated (r=.61, p<.001). Considering the conceptualization of immediacy as physical and/or psychological closeness (Mehrabian, 1971), humor can be considered an immediacy strategy. Humor that is appropriate and successful would be one means of reducing distance and creating closeness.

The third hypothesis proposed that students would regard high humor oriented teachers' use of humorous behaviors as more appropriate than low humor oriented teachers use of the same behaviors. This hypothesis was also confirmed. Teacher HO and humor behaviors were correlated (r=.28, p<.001). When students perceive teachers as having high HO, they also view teachers' use of humorous behaviors as being more appropriate. Or in other words, a humor behavior performed by a low HO teacher was seen as less appropriate than the same behavior performed by a high HO teacher.

The second research question sought to understand the relationship between teacher humor orientation and socio-communicative style. Initially the correlations among teacher HO and the two dimensions of socio-communication style were examined. Teacher HO was significantly associated with responsiveness (r=.34, p<.001) and with assertiveness (r=.42, p<.001). To further examine the relationship, we used ANOVA to determine if teacher HO differed among the four types of socio-communicative style. The four types of socio-communicative style were created using a median split. There was a significant difference in teacher HO among the four types of socio-communicative style [F(3, 313)=28.77, η=.22, p<.001]. Teachers who were perceived as competent-androgynous

were also perceived as being more humor oriented. Noncompetent-undifferentiated teachers were perceived as being the least humor oriented. See Table 3 for means and standard deviations.

Table 3 about here

The fourth hypothesis proposed that a significant positive relationship between instructors' socio-communication style and nonverbal immediacy. The purpose of this hypothesis was to replicate Thomas, et al. (1994) research on immediacy and socio-communicative style. This hypothesis was confirmed. Nonverbal immediacy was associated with the two dimensions of socio-communicative style: assertiveness (r=.42, p<.001) and responsiveness (r=.42, p<.001). These correlations are similar, but slightly smaller than those reported by Thomas, et al. (assertiveness - r=.48; responsiveness - r=.46).

The last research question queried as to whether nonverbal immediacy, teacher humor orientation, or teacher socio-communicative style would be the best predictor of the variance in student learning? This hypothesis was tested using multiple regression. Nonverbal immediacy, the two dimension of socio-communication style, assertiveness and responsiveness, and teacher HO served as predictor variables in that order, with affective learning and learning behaviors serving as criterion variables in separate analyses. The four predictor variables accounted for a significant amount of variance in affective learning [$F(4, 311)=57.12$, $R^2=.43$, $p<.001$]. Responsiveness, nonverbal immediacy, and teacher HO each accounted for significant amounts of unique variance (10%, 3%, and 2% respectively) leaving 28% of the variance shared.

A significant amount of variance was also accounted for by the four predictor variables in learning behaviors [$F(4, 308)=32.24$ $R^2=.30$, $p<.001$]. Responsiveness, teacher HO, and nonverbal immediacy each accounted for significant amounts of unique variance in learning behaviors (4%, 3%, and 1% respectively) leaving 22% of the variance shared.

DISCUSSION

The primary goal of this study was to examine student perceptions of teacher HO in the college classroom. Findings from this study shed light on the humor-learning relationship. Specifically, we found the following: 1) student perceptions of instructors' HO were significantly and positively associated with student learning, 2) there was a significant interaction between teacher and student HO and learning, 3) there was a significant positive relationship between student perceptions of teacher HO and immediacy, 4) students regarded high HO teachers' use of humorous behaviors as more appropriate than low HO teachers' use of the same behaviors, 5) there was a significant difference in teacher HO among the four levels of socio-communicative style, 5) there was a positive relationship between instructor's socio-communicative style and immediacy, and 6) responsiveness was found to account for the most unique variance in learning, with teacher HO and nonverbal immediacy also being significant predictors. Each of these findings will be discussed further in the following sections along with the limitations of this study.

Students indicated that they learned more from instructors perceived as high HO's. This finding is consistent with Gorham and Christophel's (1990) conceptualization of humor as a part of immediacy. Immediacy has consistently been associated with student learning. Therefore, if humor is a means for enhancing immediacy, we would expect teachers high in humor orientation to be associated with increased levels of student learning. High HO teacher have greater ability to enact humorous messages successfully, insert humor into a number of situations appropriately, and enact a wide assortment of humorous behaviors (Booth-Butterfield & Booth-Butterfield, 1991; Wanzer et al., 1995) in the classroom. Students may pay more attention and be more willing to attend class when humor is used regularly in the classroom. Using humor to present information may make the content more memorable, helping students to retain more information. The inverse relationship between teacher humor orientation and learning should be noted. Students reported less affect for the course and the teacher and performed fewer learning behaviors when the instructor was perceived as a low HO.

The significance of the teacher HO-learning relationship becomes even more apparent when we consider the interaction between student and teacher HO on learning. High HO students who perceived their teacher as having high HO reported levels of learning that were significantly higher than both the low HO and high HO students with a low HO teacher. Homophily appeared to be playing a role here. High HO students clearly preferred a teacher with a similar humor orientation. This finding is similar to those of Wooten and McCroskey (1996) and Elliot (1979) which indicated that teacher-student similarities led to positive classroom outcomes. Interestingly, there was no significant difference in learning between high and low HO students with a high HO instructor. Low HO students also preferred a high HO teacher. This result is similar to Wooten and McCroskey's (1996) finding regarding responsiveness. All students (regardless of their own responsiveness) trusted highly responsive teachers more than teachers low in responsiveness. It was only on assertiveness that student-teacher similarity was important in Wooten and McCroskey's study. However, low HO students were much more tolerant or accepting of a low HO teacher than were high HO students.

Students viewed high HO instructors as more immediate than their low HO counterparts. As Gorham and Christophel (1990) noted, immediate instructors used humor more often in the classroom. Highly immediate instructors used 63% more humor than low and moderate immediacy teachers (Gorham & Christophel, 1990, p. 57). Humor oriented instructors would naturally enact more immediacy behaviors (e.g., physical and vocal humor) when using humor. Gorham and Christophel (1990) indicated that moderate and highly immediate instructors used "seven times more physical/vocal humor than did low immediacy teachers" (p. 57). High HO instructors reduce psychological distance between themselves and their students by using humorous behaviors.

The finding that high HO teachers were perceived as using humor behaviors more appropriately than low HO teachers was consistent with Wanzer, et al.'s (1995) finding that high HO individuals are funnier people. Appropriateness contributes to the success or "funniness" of a humor attempt. This finding is also consistent with

Booth-Butterfield and Booth-Butterfield's (1991) description of high HO individuals as using more different type of humorous behaviors. Students distinguish between the high and low humor oriented instructors and note that humorous behaviors such as impersonations, jokes, and silly or absurd humor are enacted more appropriately by high HO instructors.

The finding that teachers high in HO were more likely to be perceived as having a competent-androgynous style indicates a relationship between one's orientation towards humor and one's ability to be assertive and responsive. This finding was consistent with Wanzer et al.'s (1995) finding of a positive correlation between individual HO and communication competence as measured via the social management scale (Wheeless & Duran, 1982). Additionally, humor orientation was positively associated with communicator adaptability and reward orientations. High HOs are more flexible in their communication with others and possess a strong need for creating rewarding impressions in their receivers.

Perhaps the effective use of humor requires the ability to be assertive and responsive. When we tell jokes, make humorous comments, or perform silly behaviors, we are asserting our needs and frequently our opinions. A person low in assertiveness may hesitate to use humor or may be unable to gain the floor in order to tell a story or joke. Effective humor also requires a person to be responsive to his/her audience. There are many types of humor (e.g., Gorham & Christophel identified thirteen categories), not all of which are appropriate in all situations. Attending to the needs and qualities of one's audience is necessary to be effective.

We successfully replicated the positive relationship between instructor immediacy and socio-communicative style. Results from this study mirror those of Thomas et al., (1994). There was a significant positive relationship between students' perceptions of instructors socio-communicative style and nonverbal immediacy. Thomas (1994) noted that students associate instructor's assertiveness and responsiveness with the use of immediacy strategies. Additionally, Thomas and her colleagues (1994) recommend that teachers engage in immediate behaviors in an effort to increase their communication and teacher effectiveness.

The final research question attempted to identify the communicator characteristic which best predicted differences in student learning. Responsiveness, teacher HO, and nonverbal immediacy were significant predictors of both affective learning (explaining 43% of the variance) and in learning behaviors (explaining 30% of the variance). Responsiveness accounted for the most unique variance in both types of learning. Teacher HO and immediacy each accounted for smaller amounts of variance, and assertiveness did not account for any unique variance. These findings indicate that teacher HO is an important communication predisposition in the classroom. Although we cannot demonstrate causality in this study, we speculate that being a high HO teacher enhances student learning beyond the effects of teacher responsiveness and nonverbal immediacy. This finding provides support for the use of humor in the classroom.

This study has provided useful insights on the relationship between teacher HO and learning and instructional variables related to learning. These findings have important instructional implications. First, high HO instructors should continue to use humor in the classroom as a means of enhancing student learning. Additionally, teacher training should include a humor component. Pre-service and in-service teachers should learn more about the functions of humor in the classroom. Additionally, teachers should be exposed to different ways to use humor in the classroom. Teachers who score low or moderate on the HO scale could receive more intensive training on appropriate use of humor as an instructional tool. One way that instructors can improve their ability to deliver humorous messages is to observe those instructors who use humor effectively. Also, instructors who regard humor attempts as "risky" should be encouraged to work on being more immediate in the classroom.

There are limitations with the present study. First, student perceptions of teacher communication behaviors were used. However, previous research has identified a positive relationship between self and other reports of HO. Wanzer et al., (1996a) compared self and acquaintance reports of HO and found that the higher the individual's HO score the more likely they were to be perceived as humorous (r = .39). Additionally, student

characteristics have not been found to influence their reports of immediacy behaviors (Frymier & Thompson, 1995). The items in the HO scale are not as low inference as those on the immediacy scales, however the HO items are relatively behavior oriented. This behavior orientation in the items facilitates the objective assessment by students of their use.

A second weakness is the inability to know exactly how many different instructors were reported on in this sample. While the sample was quite large (N=314), we can not be sure that a wide assortment of instructors were evaluated. However, students reported on instructors from 37 different departments across campus and therefore it is likely that a large number of instructors were evaluated.

Humor is an important instructional tool. Future research in this area should examine the specific types of humor that students find offensive or inappropriate in the college classroom. How do failed humor attempts affect the learning process? Finally and most importantly, can teachers identified as low and moderate HOs learn how to use humor effectively in the classroom?

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Figure 1

Humor Behaviors Scale

1. Humor that is silly or absurd. For example, he/she will tell specific jokes, act stupid, or perform practical jokes on others.

2. Specific nonverbal communication behaviors to make others laugh. For example, he/she will use funny facial expressions, variety in his/her voice (e.g., vary rate, pitch, volume), smile, and/or use his/her hands and arms to make people laugh.

3. Impersonations, imitates, or mimics others' behavior. For example, he/she will imitate someone else's voice and/or mannerisms.

4. Uses language that is witty and clever. For example, he/she will tease others and use puns or sarcasm to get people to laugh.

5. Notices peoples' reactions to situations and/or his/her behavior and adapt the humor to students' responses. For example, if my teacher sees that the humor attempts are not working, he/she will change his/her style to accommodate the students' taste.

6. Makes light of situations. My teacher will be expressive, friendly, casual, and happy in an attempt to communicate humor. He/she uses light conversations and banter to get others' to laugh.

7. Laughter - my teacher will burst out laughing or get the giggles to communicate humor.

8. Uses "props" to get others to laugh. For example, he/she brings in funny cards, cartoons, water guns, funny pictures, or any items that will make others' laugh.

Table 1

Student Humor Orientation and Teacher Humor Orientation Affective Learning Means

Student HO	Teacher HO	N	LS Mean	SD
Low	Low	79	75.22abc	20.80
	High	75	85.92ad	21.23
High	Low	70	63.46bde	23.14
	High	89	87.66ce	19.77

Column means sharing the same subscript are significantly different $p<.001$.

Table 2

Student Humor Orientation and Teacher Humor Orientation Learning Behaviors Means

Student HO	Teacher HO	N	LS Mean	SD
Low	Low	78	18.10abc	5.60
	High	73	20.25ad	4.49
High	Low	70	16.01bde	6.53
	High	89	21.87ce	5.35

Column means sharing the same subscript are significantly different $p<.05$.

Table 3

Teacher Humor Orientation Means for Socio-Communicative Style

	N	LS Mean	SD
Competent-Androgynous	74	61.03abc	10.42
Submissive-Feminine	83	50.10ad	12.51
Aggressive-Masculine	96	51.61be	13.12
Noncompetent-Undifferentiated	61	41.20cde	13.45

Column means sharing the same subscript are significantly different $p<.001$.